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The Evolution of Equine Practice

DISCUSSION BY THE CENTRAL VETERINARY SOCIETY*

(*Continued from page 151*)

Major C. DAVENPORT: For a proper appreciation of the stages marking the evolution of equine practice it is necessary to have a clear picture in our minds of the various milestones in the evolution of the horse himself. I propose to review this first of all. The story of the evolution of the horse in these islands is marked by sundry revolutionary phases, much as is our own national history. We might perhaps take as the first great change that befell him, the day on which he became a domesticated animal and had to earn his keep by sweat and toil. The second great change was possibly the introduction of the wheeled vehicle, as a result of which the horse became a beast of draught instead of a beast of burden—sore backs then giving place to harness galls.

A third stage coincides with the improvement in road surfaces, as a result of which the horse became a fast working instead of a slow plodding animal. This also probably marks the beginnings of our serious study of lameness.

We now come to the "Golden Age," the age of the gentlemen's carriages, of splendid equipages, of smart turnouts. Here is colour, life and movement, and here the horse reigns supreme. I find the temptation to linger here and consider in detail the glories of this age very strong, but it is not my subject this afternoon, and I must pass on. There is, however, one point relative to it, which I particularly wish to emphasise. Inasmuch as the horse was then essential to life and movement, it was, in consequence, necessary that he should be a stall-kept, corn-fed animal. If the Honourable Mrs. Jones wished to visit her friends in the afternoon, it was out of the question for her coachman to catch up a dirty muddy horse from the far corner of a wet boggy field. The horse was stabled ready for immediate use. So, for the space of about 300 years, we came to look upon this condition of stabling as the normal one in relation to the horse. Normal it may have been. Natural it certainly was not. Right down to the present time our ideas on horse management are influenced by this fact. Good horse mastership to-day is still the ability to corn feed successfully, clip neatly and rug properly.

Now we come to the "lean years." Something new had found a place in the coach-house, henceforth to be known as the garage. It was but natural that the appeal of this fast-moving novelty should be very strong and very real for the rising generation. The horse was displaced; he was no longer a necessity to life, and knowledge of his care and management dwindled.

During these lean years, the main centre of interest in the horse, and advances in knowledge, lay with the Army Officer. This, of course, was not absolute, for there were still the commercial and training stables where horsemanship was practised at high level. In the Army, however, was a body of men who, strange though it may seem, spent not only their morning working hours with the horse, but their afternoons' relaxation, in riding, racing, hunting and polo, and most of the night discussing the deeds of the day. And so it came about that the knowledge of the care of the horse was preserved for us during years when it might well have been lost to us, much in the same way as in the dark ages religion was kept alive in these islands by the monks and the monastic orders.

I have called these "lean years," but it is very far from certain that I am justified. These were the years that saw our greatest advances in knowledge of stable management and the control of equine contagious diseases—years that produced such men as Major-General Sir Frederick Smith, Major-General FitzWygram and Captain Horace Hayes. These men were soldiers; they were also members of our profession, and their writings must remain classics for all time. Years so full of advances and achievements cannot justly be called lean. Let us give honour where honour is due, and admit the great long debt of gratitude we owe to the Army Officer for all that he has done in the decade just past, to keep alive for us the knowledge of the welfare of the horse and the glory of the mounted sports.

And so we come to the present age. To-day we stand in the midst of one of the greatest revolutions that has ever shaken the equine world. Furthermore, it is not a single change that is taking place. I recognise at least four major developments. First, the knowledge of the care of the horse and interest in the horse is passing back from the Army into the hands of the man in the street. On all sides we find an awakening interest in the horse. All sorts of unlikely people want to ride, and having learnt to ride, want to know something of the care of the horse. Institutes and Societies, devoted to the welfare of the horse, are being established, Fellowship Degrees conferred in equine knowledge, bridle paths opened up, hotels listed. If you want to raise money to-day in aid of Prisoners-of-War Funds, a gymkhana, horse show or jumping competition is the most certain way of doing so.

Secondly, to a very large extent, the horse is going back to the land and ceasing to be the corn-fed stabled animal of the past. There are sundry influences at work here. Labour is of course an important one, for not only are grooms scarce, but the keeping of a man to look after a single horse is uneconomic. The lawn-mowing, garden digging type of groom just doesn't work. The chief influence, however, is undoubtedly the fact that the horse, not being required for immediate use all the time, is better kept out at grass. This, incidentally, is well seen in the case of the agricultural horse, who is now only caught up when required for that special job which he can do better than the tractor.

The third great change is the fact that the care of the horse, for the first time in history, is passing largely from the hands of men into the hands of women. Your local riding school proprietor is a woman; her grooms are girls. Nine-tenths of the children's ponies in this country are owned by girls. The credit marks in stable management at the veterinary colleges go to the women students. I do not know the reason for this, but the truth of it you will not deny.

Lastly, where horses are still stall-fed, they are to a very great extent being kept at livery, and not at home. This cuts right across our whole idea of horsemanship and horsemastership. Nevertheless, it must be to the good of the horse that he should be in the care and under the eye of an expert all the time, rather than at the mercy of the groom-gardener, and seen only by his master on rare occasions.

It now only remains for me to show the effect of these changes on equine practice. The increased interest in the horse makes itself felt in many ways. Many of the people concerned are quite ignorant, but inasmuch as an admission of ignorance is the first step to knowledge, we are asked the most extraordinary questions in regard to horse management, and are consulted on innumerable purely elementary problems in soundness. Furthermore, I find an increasing tendency to seek help and advice on matters appertaining to the horse at large, and not so much those strictly limited to sickness and soundness. I feel that some of the old courtesies and happy relationships of the past, between surgeon and client, of which Mr. Male spoke, are creeping back into veterinary practice, and the opportunity is before us if we can grasp it, of attaining the role of adviser, counsellor and friend.

The effects of returning the horse to the land are many, and for the most part will be obvious to you. Suddenly to change the horse from an unnatural stall-kept oat-fed existence to one of liberty grazing, cannot be without tremendous effect on health. We may expect the whole group of digestive troubles largely to disappear. For my part, I believe that the change exerts a tremendous influence also on the incidence of lameness, for on every side we have evidence of horses pulled up from grass, ridden, hunted, turned loose again, without the appearance of lameness, although road conditions remain the same as they ever were. I ascribe this to the fact that horses' tendons and joints are really only truly soft in an animal tied up all day, and that liberty to move about keeps these structures in far less vulnerable condition than we had previously realised. It takes about six weeks to get a polo pony in hard galloping condition when kept in a box all winter. The same can be done in about three weeks with a pony kept at grass—with less risk of the inevitable fetlock troubles. I am quite satisfied in my own mind that the return of the horse to grass is one of tremendous benefit to the horse.

The effect of introducing girl grooms to stables is much the same

* At the meeting held at the Conway Hall, W.C.1, on February 3rd, 1944. Major Davenport's address, reproduced herewith, was preceded by contributions from Mr. G. P. Male, Major D. A. Gillmor and Mr. Walter Perryman, published in our last issue.

as that seen when Land Girls join a dairy. Certain small details, which previously suffered neglect, receive punctilious attention. On the other hand, certain other duties that men have always carried out easily, quickly and thoroughly, are perhaps somewhat neglected. Nevertheless, it is undeniable that horses are very well done when placed in the hands of women, and in all my long experience of the nursing of sick horses, I have never had animals nursed so well as when a woman has been in charge. Our problem of the supply of grooms in the future is not, in my opinion, one that is likely to cause us much trouble, for it is solving itself in an unexpected manner, and in a way which I firmly believe is all to the good of the horse.

The keeping of horses at livery affects veterinary practice in several ways. For instance, it is possible to enter these stables and to meet one or two other veterinary surgeons there, each separate owner employing the man of his choice. The proprietor and his stud groom at the stable are likely to weigh up the respective merits of the various men. In short, it is necessary, when visiting these establishments, to be as good to-day as ever before. Nor is this all. These men speak a language of their own, and expect you to do the same, and they prefer that you should be both a good surgeon and a good horseman. Needless to say, this creates great difficulties for the young graduate. It is obvious, however, that it must be for the good of the horse, as well as for our own work, that valuable animals should be in the care of experts. With that I must conclude.

General Discussion

Colonel Edward Curley (C.V.O., United States Army, European Theatre of Operations): There were five diseases of equines in the confines of the territorial United States that were causing their control officials considerable concern at the present moment: encephalomyelitis, infectious anæmia, dourine, periodic ophthalmia, and what was referred to in the Army as "shipping fever." They often got into heated arguments for using that all-inclusive term, which embraced influenza, strangles, pneumonia and purpura haemorrhagica. In America they were using a bivalent vaccine for encephalomyelitis, particularly in Army animals, with marked success.

In regard to dourine, or equine syphilis, this disease up to a few years ago was practically extinct in America. He understood it had never been found in the British Isles, at least, not reported. They thought they were through with it until a few years ago; however, when the war started and there was a shortage of meat products, particularly those derived from cattle, horses were imported from Mexico and the carcases subsequently broken down for pig and chicken food; and it was believed that the degree of infection now found in America had its inception in that particular way. The areas of infection were discovered by purchasing officers of the Army, in their quest for the proper type of horse either for draft or riding purposes. It was predicted that the disease would soon be eradicated by the simple expedient of castration or even the slaughter method.

Planning for the future had not been overlooked, particularly as regards the broad phase of agriculture with its attendant veterinary problems of both military and civilian needs in the now subjugated countries. It would therefore give him considerable pleasure to introduce Major Frank Todd, of the Veterinary Corps, who would be their representative on civilian affairs in the U.S. Army. (Applause.)

Since coming to their country they had learned to know, and he believed rather intimately, the present Director of the R.A.V.C., Brigadier Kelly, and also his predecessor, Brigadier Murray, and he had to say that their relations with both had been very cordial. (Hear, hear.) However, from their experience they were compelled to disagree with Brigadier Kelly and his colleagues and agree with the gentleman in civilian clothes, who made the statement that he was a great believer in oil of chenopodium. From their experience it was about the most efficacious drug that could be found for certain internal parasites, especially when given through the stomach tube.

There was, however, one particular statement which was stressed by the last speaker. He inferred that turning horses out to pasture was a great thing for their tendons and legs. It seemed to him that the benefit thus derived was due to the fact that on grass you restored the mechanics of the foot by frog pressure. The resultant benefits to the legs and tendons were therefore obvious.

Brigadier G. A. Kelly (Director, Army Veterinary and Remount Services): They had heard a lot about horses, a subject about which he was particularly keen. He looked to his officers to be horsemen and "horse-minded," but the poor old much-maligned mule was the animal they were pushing nowadays. It was not a matter of thousands but of hundreds of thousands of mules that they were employing, not only in this part of the world but in others more distant.

The collection of these animals was a big problem. The R.A.V.C. was running the Remount Service as well as the Veterinary Service on this side of the globe. In India there was a separate Remount Service which was quite well developed, and perhaps some day in the normal course of events they might also get control of that. (Hear, hear.) At one time it was thought that as veterinary surgeons they were more doctors than recruiting agents—at least that was the way it had been put to them. It was said that the doctors looked over the patients but the recruiting officer got the patients; they insisted, however, that they could do both equally well, and he thought his hearers would admit that up to date they had done it. (Applause.)

Major Davenport had been very gallant to the ladies and he must say it was remarkable how well they were doing with animals. (Hear, hear.) He noticed particularly the important part that the ladies were taking in equine life. He was talking to Principal Buxton at the London College examinations last July, when there were 36 candidates present who graduated, and he told the Principal, looking at them, "I think the best men you have got here are the six women." (Laughter.) And they definitely were: if those six girls could be recruited he would have taken them *en masse*; unfortunately, they had no vacancies for them.

As a development of modern times, they had to conform to mechanised standards to a certain extent; they were broadminded, however, and when they gave their fellows a course nowadays, funnily enough, the first subject they were taught was mechanical transport. They had to be instructed how to look after a lorry: since if animals were sick or were required as remounts, they frequently had to be loaded on lorries. In one instance in East Africa they carried a whole company 700 miles through very rough country. Transport companies, they would be surprised to hear, had also been carried by air in the South-West Pacific. They had seen photographs of a little transport carrier that was called a "beep" in the U.S.A., but he was quite certain that it would not reach where a mule would go, over rough mountain country, so still the mule was required, and there was no mechanical answer to the question.

He had been abroad a great many years and so had not had the opportunity of coming to a meeting such as that one to-day. It was most edifying to hear such a wide discussion of the subject, which had been particularly well dealt with by the openers, but from the Corps point of view, of course, contagious disease was the big thing. In this campaign alone they had struck some nasty outbreaks. Encephalomyelitis was a very severe disease in the U.S.A. and some years ago they encountered an extensive outbreak in India. They knew very little about it then (it was treated in the previous campaign as contagious paralysis) and they had to send to the Bureau of Animal Industry for literature on the subject; they also acquired a selection of German literature and eventually came to know a good deal about the disease. Professor Shirlaw, of the Lahore Veterinary College, helped them a great deal through his researches into the subject. Fortunately the type of disease they now met with in India and later in the Middle East proved to be very mild.

There were many other contagious diseases of which they saw a great deal. In the case of epizoötic lymphangitis the mortality was not high but the infection was most persistent. He had to buy mules in an area where this disease was rampant, in the Sudan and in Abyssinia. They brought it with them; it was very difficult to isolate and treat animals over a long period during a campaign so they still went on with the destruction policy. Unfortunately other countries did not, and now that they were about to operate elsewhere he was afraid the disease would spread again. They had managed to keep it down by slaughter. The civilian laboratories helped them tremendously in their investigations: in Palestine, for example, the Tel Aviv laboratory was of the utmost assistance. They also had the benefit of the help of Professor Bennett in the Sudan and of Professor Zaki Morcos, of the Cairo Veterinary College, while the Civil veterinary surgeons everywhere assisted them immensely in combating contagious disease in the field. (Applause.)

Trypanosomiasis in certain parts of the world was extremely serious in equines to-day and mortality was very high although they extensively used naganol and antrypol. In camels these drugs were very good indeed, but not 100 per cent. effective in equines, and they were extremely worried by this disease which was carried by the buffalo and by ordinary cattle. It appeared to be almost non-pathogenic to buffaloes and these animals went along as carriers swarming with trypanosomes, with very serious results to susceptible subjects.

He wished to take that opportunity of saying a word in regard to recruitment of officers. He interviewed all candidates and explained to them in detail the work of the R.A.V.C.; also why they were accepted or rejected, because although they might not suit the R.A.V.C. for Service reasons, they might nevertheless be extremely well adapted to civilian practice. He did that in order that it might be spread about exactly what the Corps was doing. They were working on a very comprehensive scale at the present time, because they handled quite a lot of bovine animals as well as equines; moreover, they had to deal extensively with war dogs and even with pigeons. Officers of the Corps had to be able to face anything—camels came naturally within their orbit; Captain Pool, in India many years ago, gave him a vast amount of guidance in the matter of their diseases. All classes of animals were employed in the Army to-day. In India they had got back to bullock transport; they were short of animals and they had to adapt these slow-moving creatures in order to conserve the mules, the hardy animals that were almost fool-proof to operate anywhere in the field.

They had got to instruct the boys they took in such matters as pack saddle fitting. The transport animal was again a beast of burden rather than a draught animal in many theatres of operation. Their people were given a real education in animal management and the commonsense treatment of animals—this was particularly necessary to-day because the men in charge of transport units in many cases had no real experience in these things and they simply had to "carry" them.

So the Corps was looking for level-headed young men who were really able to pull their weight as officers. They would be technical advisers to officers very much senior to themselves, and they had to cause these senior officers to look upon them as experts in all that pertained to animals. Those were the type for whom there was a demand—practical young men with personality: they did not need to be jockeys; the R.A.V.C. just wanted them to be able to get to their job without falling off, the rest would come later. (Laughter and applause.)

Major R. F. Wall: That meeting had brought him into contact with the memories of departed friends. There were, however, one or two whom he would not exactly call friends, and that brought him to the point that some remark was made about the loss of prestige of the Army Veterinary Corps at the time of the Boer War. Unfortunately, he knew of an instance where a member of the profession of senior rank did not enhance its reputation. Fortunately they had Sir Frederick Smith, who helped to put matters right.

Having described some of the disease conditions encountered at that time, and the measures taken to deal with them, Major Wall proceeded: From a very long experience of the Corps in various wars, he thought he was justified in saying that the strides the Corps had made were enormous and the help they had been to the profession was extraordinary. Though their American friends were there he would like to say the same thing for the American Army Veterinary Service in regard to its influence on the profession over there. He had the privilege of the friendship of Colonel Kelser, the Chief of their Service, and of Colonel Daniels, Chief of the Remount Service, both of whom he had seen quite recently. The advancement of the veterinary profession in the United States and in the Army in the past 25 years was remarkable.

He was very interested and pleased to hear what their friends Mr. Male and Major Davenport had to say, and he quite agreed with them that the public was coming back again to the old horse. He found instances of this constantly: the public was becoming more horse-minded. One thing he deplored about the passing of the horse—so far as it had passed—was that human beings were not so closely associated with them nowadays. When they had horses to ride and drive and looked after them, they were more generous towards their fellow human beings. The horse was part of their life and they gave to him the best they could.

In regard to one point raised by Major Davenport, there was no doubt that horses turned out to grass could be more readily conditioned. He had had a great deal of experience in various parts of the world, and once had a ranch at Wyoming, where there did not seem to be enough grass on which to keep a rabbit. As a matter of fact, however, the "Buffalo Grass" of the pastures was marvellous—the horses' feet and legs were like iron. These horses never saw corn and they never knew what illness was. The moment they started bringing them into depot and feeding them, however, they quickly got every disease under the sun. Therefore the nearer the horse got back to nature the better it was for him and perhaps for all veterinary surgeons.

Colonel Curley had mentioned encephalomyelitis. Was it or was it not a fact that the mule was very seldom affected? Out of the many thousands of animals he had had to deal with in the U.S.A. and in Mexico he had seen very few mules with that disease, but hundreds of horses. There must be an answer to that, and perhaps Colonel Curley could give it.

Mr. W. S. King: On entering that room he was told by some old friends that the horse was doomed, but he was prepared to say the horse would outlive him—it certainly looked like outliving the farrier. Mr. Male had referred to the scarcity of farriers. He (Mr. King) happened to be chairman of a body in the London district whose job was the recruiting of farriers, and now they had a scheme which they were hoping would encourage young men to become apprentices to the trade

With reference to "neurectomies," he had records of many thousands in the old days of the 'bus horse, and one party told him that if he had to begin again he would never have one done. Concerning strangles, he agreed with Mr. Male that sulphonamides were of no use, but since he first began to use them he had not had a single death from pneumonia. It was significant, however, to note that sulphonamides were of no avail in declared cases of pleurisy or even in purpura haemorrhagica, and after using every treatment in this latter condition he found the best results were obtained by the intravenous injection of formalin—even then he could reckon that with this method of treatment he had at least 16 to 18 per cent. of deaths. Regarding the aetiology of this condition, the true exciting cause in the horse was unknown: there was a possibility, however, that this disease was due to a mineral deficiency and it was certainly true that he had achieved excellent results by the intravenous injection of calcium borogluconate.

Mr. Perryman had referred to glanders and paid a great tribute, which he endorsed fully, to the work that Hunting did in this field, but he would like to mention another great man, the late W. F. Shaw, who had by far the largest district in the London area and did significant work on that disease.

He noted that no one referred to what was in fact a common feature in practical life, *i.e.*, the great mortality following upon faulty dietetics and watering. Twist was an exceedingly common factor in equine practice. It used to be said that fatigue was a very common factor in the causation of this condition; that was the case, but he doubted if it was of such importance as the lack of a liberal supply of water, and from the great many *post-mortem* examinations he had made he concluded the vast majority of deaths in the London area were attributable to an absence of water—when they had water installed at the side of the manger they reduced their colic cases to a minimum. Apart from atony and parasites, which could be primary causes, he was convinced that quite 70 per cent. of cases of colic in the London district were attributable to the lack of water. He was glad to say that calculi were extremely rare in these days, as were also intussusception and ruptures.

Regarding haemoglobinurea, he had been able to recognise symptoms in the muscles in animals, standing in from lameness, frost or other causes, long before any loss of power existed which could be induced by movement. He had brought about elimination of the symptoms by complete starvation and lavage of the stomach and intestines by flushing.

Major Davenport and others had referred to the ease with which horses could be reconditioned after grazing. That had not been his experience, and all the cases he had had under observation had been weighed.

The PRESIDENT (Dr. Tom Hare): Several speakers had referred to the desirability of securing the training of young farriers after the war, which reminded him of the honour recently done to Dr. Bullock in being elected to the Court of the Worshipful Company of Farriers. (Hear, hear.) He thought they could look to Dr. Bullock, from the eminent position he would now hold, to further the cause of training farriers. The Society welcomed very sincerely the honour conferred on Dr. Bullock and they hoped he would live long to enjoy it. (Applause.)

Mr. J. McCUNN: He could now speak after about 25 years' experience as a veterinary surgeon. His interest in horses went back further than that because he was brought up amongst them—in fact, at Welbeck, almost in the same stable as St. Simon, William III, Donovan, Carbine, etc. When he was a boy he used to listen very closely to all the mysterious jargon about quarters, shoulders and hocks, pedigree, etc., which his father could talk *ad lib.* When the time came for him to think about being a veterinary surgeon, of course the El Dorado of veterinary surgery was London. Anybody who could be called "Mr. Brown of London" was in Class A. He came to London and worked in a practice while he was a student. He thought some of the Fellows that day had gone a little bit wide of the mark, for really the word "evolution" meant the gradual unfolding of things in due course and what they were really talking about was the evolution of horse practice.

When he first came to London and wanted to cross the streets the main difficulty was the numerous heaps of excreta, there were so many horses. In the place where he was living there was a short distance of road—about a quarter of a mile—and in it he could count as he went to college at least 100 horses either meeting him or walking along in the same direction as he was. That continued also during the time he was going to the London Hospital, and up to 1924 you could still meet the same number of horses. Thereafter there was a rapid decline.

Other things struck him as peculiar when he came to London. At Welbeck, if a horse was going to be trained for harness, it went through all sorts of performances. He did not know how many times he had stood on a plank behind a horse. In London he found great cartage firms buying young horses, and all they did was to put the newcomer by the pole alongside another older horse and away it went into the traffic. He was also amazed to see what acrobats the horses were. The London streets were slippery, yet the horse seemed to get control of himself in about a week. Then he thought it peculiar that the horse seemed to get contradictory orders: for instance, in London you heard the two terms "whoa" and "back" used together.

In those days you could earn your living before breakfast in a gentle walk up the street. Or you went into the yard and there would be anything from six to a dozen horses standing there, and all types of people with them, waiting for attention, and that attention varied from such things as sitfasts to unnerving or firing. Another point that struck him was that when they went around the various stables there were always a lot of horses with such ailments as quitter, fistulous withers and poll evil, and these horses were subjected to operations which, to him at the time, although he was deeply interested in surgery, seemed to be uneconomic. Probably the horse would be worth about £7, whereas in addition to the cost of the operation there would be that of his keep off work for six weeks or so and the treatment would cost a matter of £20 before it was finished. Now, although there was not the same number of horses there was not the same percentage of operations, and in that way he thought there had been a great advance if their object was to make themselves of economic use to the owners. There were many owners nowadays who did not treat such conditions as ringbone, because if you laid a horse up for six weeks they counted up the cost and said it was better to kill him and get a new one in. That had been a very serious factor from the point of view of the livelihood of the veterinary surgeon.

The next great change he saw was the diminution in colic. Colic was the financial stand-by of most town veterinary surgeons. In their own yard there was scarcely a day went by without one or more horses coming in off the streets with colic: horses whose owners were the clients of other practitioners. They used to give them treatment and inform the other veterinary surgeon, who would come along and see the animal. Colic had a speedy and major defeat somewhere about 1922, when the eight-hour day was introduced; there was no doubt—and in this he disagreed with Mr. King—that over-tiredness had a lot to do with colic. One firm in Poplar kept its horses in a sort of tenement house of several stories, and during one week he was there attending colic cases every night. These horses used to go out at six o'clock in the morning and when he was arriving for his colic call in the late evening he used to see them coming in, hitting their toes, their heads down and their ears flopping—they were "all in." Lameness was the same. Why did they not get the same percentage of lameness nowadays? Because the horses were never tired. If structures were frequently and consistently tired they lost their resilience, and if the horse slipped he could not save himself and structural changes occurred readily.

Another extraordinary thing he noticed when he first came to London was the way in which cart-horses were trotted like hackneys about the streets. Another striking feature which had had a great effect for good on veterinary practice was that in those days folks used to keep all sorts of horses: there was no proper type—the best at that time was the Welsh type. They also used to keep such uneconomical horses as those affected with canker, greasy-legged ones, kickers and squealers. The last-mentioned were terrible. He well remembered taking the temperatures at a mallein test on 70-odd horses, where the pathway behind the horses was scarcely wide enough for a wheelbarrow, and every horse was a kicker or a biter. He was up all night because every animal not only had to have a twitch on him but had to be gagged as well. Things of this sort had changed in veterinary practice: going out for a walk nowadays, one did not see many greasy-legged or cankered horses; their owners would not keep them—they wanted horses that were 100 per cent. useful.

Another thing he had seen was the alteration of stables structurally, but he did not think horses were any healthier in these new stables. It might be that in the older cruder stables they had freer ventilation. Another cause of the diminution of colic was the change from home chaff cutting to firm chaff cutting: there was now a great deal of sifting done. After the last war several big firms took up this matter and horsekeepers recognised that it was not an economic proposition to keep one man for cutting chaff when they could buy it ready cut at a commercial rate. These big firms developed intricate machinery with magnets, etc., for removing deleterious metallic objects, and the chaff, therefore, was absolutely free of dust. To-day one never saw those great heaps of calculi in the knacker yards. That chaff cutting change, too, had had a great effect on the evolution of horse practice, because it had diminished the amount of colic.

Then they had the introduction of the sulphonamides in the treatment of pneumonia of the young horse that came into the stable. In his earlier days, if one bought six young horses, one could reckon one would lose one of them from pneumonia and that another would go wrong in his wind. Or the disease might leave an internal abscess which would give rise to ill-health. With the sulphonamides, he thought all that had been eliminated, and it was a great pity that they did not come in 20 years ago when they would have been of tremendous economic interest to horse people.

A remarkable change which was inherent in the reduction in horses had occurred in humans. When he first went to the hospital for his training one of the commonest conditions they used to see was diarrhoea and vomiting in children. It was a "killer" condition and it had diminished, no doubt as a result of the disappearance of the heaps of dung in the streets and the associated flies.

In reference to Major Davenport's wonderful address, he would like to draw their attention, and that of others who did not know of them, to some articles which Major Davenport had printed in a book called "Riding." They were most interesting.

Just one point for their American colleagues: it was to refer back to our great man—Macqueen. As a young man Macqueen went to America as an emigrant. He became a cowboy and subsequently worked in the silver mines in Nevada. He became the foreman of the mine—which was just what they who were privileged to know him would expect. While there he came into touch with their great man, Law, and it was through the interest that Law took in this young man that Macqueen became a veterinary surgeon, to the great benefit of the English veterinary profession.

Dr. J. T. EDWARDS, in concluding the discussion, said he wished to delineate the impact of modern scientific research upon the evolution of horse practice. At first sight, to practitioners at home, this would appear to be small, at least in comparison with what had happened during the last generation in the case of disease in some of the other domesticated species, such as sheep and poultry, where remarkable advances had been made in elucidating the nature of some of their commoner diseases and in evolving appropriate methods of preventive treatment. He (the speaker) had been impressed in this connection, as probably portraying the generally held view of practitioners, by some remarks made by a veterinary colleague whom he held in high regard for his sanity of judgment, namely, Mr. Howard Dawes, of West Bromwich, in the course of a discussion held on the occasion of the launching of the survey scheme, N.V.M.A. (*Vet. Rec.*, 1940, August 21). Mr. Dawes's view was that at any rate so far as the commercial horse was concerned, which had remained perhaps the healthiest of the domesticated animals, it had been a real blessing that the research workers, or more particularly the non-veterinary research workers, had kept their meddlesome hands away from this animal.

There were undoubtedly several reasons why scientific research should appear to have exercised little influence upon the evolution of horse practice, and he (the speaker) would mention only three.

First of all, the horse was rather an expensive animal to use for experiment. He had often heard his old mentor, the late Sir John M'Fadyean, say that it was a great pity that the opportunity was not taken during the 1914–18 war, when the public purse strings were loosened as they were never likely to be in time of peace, to carry out a thorough investigation into the common respiratory diseases of the horse, notably equine pneumonia. Just before the war some remarkable research had been carried out by the German Government at their remount depots to ascertain the cause of this troublesome disease, and it would appear from the publications of Gaffky and Lührs that the primary cause was a filtrable virus. With the advent of war, however, that government found that it ceased to cause anxiety, except at certain large depots ("Brussell's disease") because, it seemed, the contagion was not readily transmissible among horses kept in the open, *i.e.*, under field conditions. However, among horses imported into this country from America, and at certain depots, the disease was sometimes alarming enough ("shipping fever"), and the somewhat crude laboratory research carried out at Aldershot into the nature of the disease and the steps taken in U.S.A. for preventive treatment did not now make very edifying reading. A very useful piece of knowledge was gained, however, in detecting the pre-clinical febrile stage of the disease which enabled isolation of infected animals to be carried out at an early stage. He (the speaker) wished to make these remarks without any hint whatever of reproach towards his former colleagues in the R.A.V.C., whose loyalty and helpfulness in the course of a happy collaboration in India he had greatly appreciated. It showed, however, that splendid opportunities might be missed through not having a well-organised research cadre at call when problems of this kind presented themselves in time of war, and funds were likely to be forthcoming for their investigation.

The second reason why research work upon the equine species had appeared to lag behind was, as Major Davenport had picturesquely indicated, because the horse, from the time of the introduction of the petrol-driven vehicle, in the first and second decades of this century, had entered upon a sort of "negative phase." He (the speaker) recalled that when he arrived in India in 1921, one of the problems he wished to investigate was *kumri*, but he was assured by his colleague, situated in a notorious *kumri* area (Bihar) (Mr. David Quinlan) that it would not be worth his while as the horse has ceased to be an important economic proposition. Again, in 1924, on visiting his friend, Major Williamson, R.A.V.C., at the Ahmednagar Remount Depot, and being shown a case of spavin in a loose box, he could not help but exclaim his wonder whether the horse would become extinct before they got to know anything at all about spavin, in spite of the fact that the acme of professional competence since time immemorial had been alleged to be an ability to diagnose this condition with assurance. Things had changed. Not only was the horse coming back into public regard in the ways Major Davenport had so

ably portrayed, but also the general advances made into our knowledge of the different categories of disease were throwing light upon the above age-old infirmities of the horse. Advance in virus research had given us a very complete understanding of equine encephalomyelitis as it occurred in U.S.A., of which Indian *kumri* seemed possibly to represent the sequel of a chronic infection. Advance in our knowledge of rickets and the other osteodystrophic diseases was giving us new light upon the nature of the common bone and joint diseases of the horse.

A third reason why scientific research had seemed to have made little impression upon current horse practice was well depicted by Lec'ainche in his *Histoire de Médecine Vétérinaire*. The spate of discoveries in bacteriology announced during the last quarter of the nineteenth century, which at one time seemed to augur well to assign the cause of every known disease to a specific bacterium, came rather suddenly to a halt just about the close of the century, leaving the daily work of ordinary private practice, in town and country, much the same as it was before. True, an outstanding triumph of this epoch was the discovery of the cause of glanders and of the use of mallein in diagnosis—a disease which, with cattle plague, had been reckoned to be of such grave moment as to have been one of the main reasons why States sponsored the foundation of the veterinary schools towards the close of the eighteenth century. However, the common so-called "unsoundnesses" o horses were left untouched by the march of discovery.

During the period that had elapsed since the last war there had been, however, a radical change in our whole outlook in regard to disease. Before the last war, search was invariably made for the cause of disease in something bearing, as had been said, a + sign: a parasite, a bacterium, a protozoan, or a virus. It had been extremely difficult for the human mind to attune itself to inquire into the possibilities of disease arising through a factor bearing a — sign. With the tremendous advances made in nutritional research, they had come to realise that a whole array of diseases could be set up by something that was "wanting" as well as by the something that was "noxious." Those whose minds were set therefore in matters of everyday horse practice at home must need to look afresh at their common problems, and ascertain whether thereby they would need to approach their problems, of treatment and prevention, in an entirely different way. Particularly so, they would need to look again into the group of diseases which they had been prone to class, perhaps much too readily, as hereditary diseases, such as sidebone, spavin, ringbone, splints, stringhalt, shivering, roaring, and whistling. From the standpoint of the modern geneticist a disease which arose through some effect upon the organism subsequent to the mingling of the genes at the moment of conception was not really a hereditary disease. Grave effects might endanger the future development and well-being of the organism during the gestational life, and he would not need to labour further the implications of this concept upon the problems at issue.

As they had heard from Major Gilmor and Major Davenport, during this period of the changing outlook profound changes had been taking place in the care and management of the horse. The liability to "insult" from the absence of the factors which were now well understood to be necessary for healthy development seemed to have become lessened, happily, through these changes, and it was not hard to guess at the causes of the improvement. Again, it had been said that each environment brought out its own class of diseases, and this would refer not only to infectious disease but also to the deficiencies which would be ultimately traceable to the soil.

Those of them who had consecrated their careers to the advance of knowledge by the methods of scientific research would therefore contend that there now stood to their credit not only more knowledge in regard to what might be called the exotic diseases of the horse, together also with the striking advances that had now been made in therapy (*e.g.*, with the sulphonamide drugs, etc.) but that the scientist had taught the horse practitioner the need to acquire an entirely new outlook towards some of his commoner problems. He, the practitioner, must not fail to re-educate himself and adjust his methods to this newer outlook.

Colonel CURLEY expressed regret that he was unable to answer the question addressed to him as to why mules were not as susceptible as horses either to the East or West strains of encephalomyelitis.

Reference had been made to Dr. Law. As they possibly knew, Dr. Law was Dean of Cornell University in New York State, and it was recorded in the autobiography written by the first President of Cornell, Andrew D. White, who had been at one time Ambassador to Russia, that when Cornell University was established, Ezra Cornell himself went down to the boat in New York when White was going to England to select professors for the University, and whispered in a loud "aside" to White: "For God's sake don't forget the horse doctor." That doctor turned out to be Dr. Law, who had come to be beloved all over the world.

The PRESIDENT: We all are familiar with Law's "System of Veterinary Medicine."

Mr. G. P. MALE, invited by the President to make reply, thanked all those speakers who had added so much to the discussion and filled in the many gaps that he left. It was a very big subject and they were especially pleased that all sides of it had been touched upon—particularly the Army side and their difficulties with diseases in other countries.

There was a little difference of opinion between Major Gillmor and himself, in his remarks on Army horses, in regard to the efficacy of phenothiazine, but in his address he had pointed out that he was referring to the clinical case; he took it that the Army cases were all pre-clinical cases and that the subjects were adult horses, whereas his were young and chiefly thoroughbred horses. Moreover, they were already showing signs of enteritis, and he found in that condition that phenothiazine was a dangerous drug to give. He was interested to hear that in America they still relied on oil, chenopodium.

Mr. King did not get him quite correctly in regard to the sulphonamides. He did not say they had failed, but that he had not found them any great advance on the treatment he had previously given for pneumonia. He had in mind an outbreak during the last war among thoroughbred studs in some of which there were 50 per cent. fatalities. The results he had then were very satisfactory: he only had one die out of over 100 horses affected with this normally very fatal type of pneumonia, whereas since using agents of the sulphonamide group he had not had such good results as that. If the sulphonamides were good, he should be delighted, however, because something that was going to help them therapeutically was always welcome.

Weekly Wisdom

The best person to decide what research work shall be done is the man who is doing the research. The next best is the head of the department. After that you leave the field of best persons and meet increasingly worse groups. The first of these is the research director, who is probably wrong more than half the time. Then comes a committee, which is wrong most of the time. Finally there is the committee of company vice-presidents, which is wrong all the time."—Dr. C. E. K. MEES, of Eastern Kodak.

CLINICAL COMMUNICATION

Cotarnine Chloride for Uterine Haemorrhage

ARTHUR WELCH, M.R.C.V.S.
RYDE, I.O.W.

Subject.—Six-year-old Sealyham bitch.

History.—Bleeding from the vagina commenced about a week after mating.

Treatment.—When first seen the bitch had been bleeding for about four days, but apart from lassitude seemed little the worse for it. Vaginal examination revealed no injury or growth and douching with a saturated solution of alum was suggested. As, however, the haemorrhage still persisted after a further period of four days, the bitch was admitted to kennels. Closer examination with a vaginascope, under general anaesthesia, revealed only a slight cervicitis, which in my opinion indicated that the haemorrhage was due to a uterine fibroid, probably located immediately inside the uterus. Further treatment consisted of adrenalin tampons and pituitrin intramuscularly.

The haemorrhage continuing, hysterectomy was considered, but it seemed that this might not solve the problem if the fibroid should be located just inside the cervix.

As a final measure it was decided to try cotarnine chloride, which is used in the human subject to check menorrhagia and bleeding from fibroids. One and a half grains were given orally twice a day and after the second dose haemorrhage ceased. Treatment was continued for two days and so far there has been no recurrence of the haemorrhage.

ABSTRACT

[I.—Attempts to Demonstrate Passive Immunity in Bovine Trichomoniasis. GARLICK, G. G., BARTLETT, D. E., HAMMOND, D. M. (1944.) *Amer. J. vet. Res.* **5**. 14-16; **II.—Attempts to Develop Active Immunity to Bovine Trichomoniasis in Breeding Females by Inoculation Prior to Breeding Age.** BARTLETT, D. E., HAMMOND, D. M., and GARLICK, G. G. (1944.) *Ibid.* 17-21.]

In the first publication the authors record a small-scale experiment in which attempts were made to confer passive immunity on four susceptible heifers by injections of defibrinated blood and serum from three immune cows, as determined by repeated exposure to infection. Although the number of animals employed in this experiment is too small to permit definite conclusions to be drawn, the evidence does suggest that some measure of resistance was transferred. Two of three heifers tested by intravaginal injections of cultures resisted infection, but in two cases, in which the test involved either service by an infected bull or the injection of preputial flushings, both became infected.

The second publication records the failure of attempts to immunise calves by repeated intravaginal injections of cultures or preputial flushings containing *Trich. foetus* prior to breeding age. One to two years after the last infection produced by these inoculations the animals were tested by coitus with an infected bull or intracervical injection of trichomonads and all became infected.

G. D.

REPORT

[New South Wales: Livestock Disease Report, 1942-43.]

This abridged report issued by Mr. Max Henry, M.R.C.V.S., V.D., B.V.SC., the Chief of the Division of Animal Industry of the Department of Agriculture, reveals a year of strenuous endeavour both by field and laboratory staffs to maintain and improve the high standard of livestock health in the State.

The year was notable for the first outbreak of swine fever in Australia since 1928, New South Wales and Western Australia becoming involved. Prompt control measures met with satisfactory results however. Swine erysipelas also appeared to be assuming epizoötic proportions and was causing some anxiety to the authorities since its control under Australian conditions might well assume the major problem it has become in the U.S.A. Swine brucellosis is a further menacing complaint owing to the difficulties of checking its spread. These diseases of swine were particularly serious at the time of reporting owing to the demand then prevailing for pig products.

The tick-eradication policy, which has played such a successful part in the maintenance of health among the livestock of the State for many years, had a temporary setback during the year

through opposition of owners in some areas, but by the intervention of a Board of Enquiry the position was soon restored. Bovine pleuro-pneumonia, once a major disease, has been practically checked by quarantine restrictions and the detection of "carriers" by means of a complement fixation test.

The tuberculosis-eradication schemes were expanding. The control of anthrax and clostridial infections was maintained. The inspection of animals in transit to and from the State involved the examination of over two million and one million beasts respectively.

The schedule of work at the Research Station at Glenfield was very extensive. Outside the routine examination of some 23,000 specimens submitted from the field many and important lines of research were undertaken. These included studies on the longevity of the swine fever virus, calfhood vaccination against brucellosis, treatment of bovine mastitis therapeutically, serological diagnosis of swine erysipelas, the causation of nutritional anaemia of sheep, the aetiology of swine pneumonia, the transmission of swine brucellosis in nature, and nutritional deficiencies generally.

Despite the war the work of the Division was maintained at a full and fruitful level.

W. K.

IN PARLIAMENT

Control of Milk Production

BILL TO TRANSFER POWERS FROM LOCAL AUTHORITIES TO THE MINISTER OF AGRICULTURE

Last week there was introduced in the House of Commons the Food and Drugs (Milk and Dairies) Bill, the object of which is to improve the conditions under which the nation's milk is produced, by the application of central administration. To this end it is proposed to transfer to the Minister of Agriculture the powers now exercised by local authorities for controlling the conditions under which milk is produced on the farm. If Parliament approves the Bill, the Minister will be responsible for all matters concerned with production. Last July the Government published a White Paper entitled "Measures to Improve the Quality of the Nation's Milk Supply," and the Bill accords with paragraphs 13 to 15 of that document (*Vet. Rec.* **55**. 281). The multiplicity of responsible authorities has resulted in a very wide variation in standards of administration; the Ministry of Agriculture considers that unified control will make possible greater uniformity of standard and a continuous improvement in that standard.

The proposed transfer of powers to the Minister of Agriculture is likely to meet with opposition in the House—many protests on various grounds already have been made—but the Government are persuaded that the requisite improvement in the standard of milk production conditions can only be achieved thereby; while the larger authorities have discharged very efficiently the duties now to be transferred, this cannot be said of all authorities. The Minister of Agriculture is already responsible for the veterinary inspection of herds and for the milk testing and advisory scheme, and it is thought anomalous that he should not also prescribe the conditions under which milk is produced. He will recruit a staff of veterinary surgeons and other inspectors to see that methods of milk production and buildings are satisfactory.

Responsibility for enforcing the existing statutory provisions for protecting milk against infection and contaminaton in milk depots and retail shops and during transport and distribution will remain with local authorities.

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Questions

AGRICULTURE: GOVERNMENT POLICY

Lieut.-Colonel Sir IAN FRASER asked the Minister of Agriculture if he will take steps to secure for the agricultural industry economic security for at least four years, following the precedent of the recent arrangements for the mining industry.

Mr. HUDSON: I stated in the House on January 26th that I was willing to consider with the National Farmers' Union whether the undertaking given to farmers that the system of fixed prices and an assured market will continue up to one year after the cessation of hostilities can be extended up to and including the harvest of 1947. Discussions are proceeding with the National Farmers' Unions of England and Wales and of Scotland, and I hope that the necessary conditions for an extension of the permit of the undertaking will be agreed shortly.

Colonel BURTON asked the Minister of Agriculture when he will state the result of his conversations with the farming industry.

Mr. R. S. HUDSON: Discussions are taking place with the farming industry on the various questions referred to in my speech in this House on January 26th last and on certain aspects of post-war policy. Useful progress has been made, but I cannot say yet when it will be possible to make a public statement.

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SCIENTIFIC RESEARCH, BRITISH EMPIRE

Mr. SALT asked the Prime Minister whether advantage will be taken of the presence of the Dominion Prime Ministers in this country to discuss the desirability of establishing some better machinery for the advancement and co-ordination of scientific research and development in all parts of the British Empire.

THE DEPUTY PRIME MINISTER (Mr. ATTLEE): This matter will certainly receive consideration.

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WARBLE FLY ORDER

Rear-Admiral BEAMISH asked the Minister of Agriculture how far the suspension of the Warble Fly Order has resulted in deterioration of hides; and what prospects there are of obtaining supplies of the dressing powder for resuming the treatment of cattle.

Mr. HUDSON: I have no information to show the effect of the suspension of the Warble Fly Order on the amount of damage caused to hides by warbles. As regards the second part of the Question, there are good prospects that next year there will be appreciable quantities of the powder available for dressing warbled beasts.

NOTES AND NEWS

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

May 16th.—Meeting of the Joint Veterinary Officers and Public Health and Parliamentary Committee, at 11.30 a.m.; Meeting of the Finance and General Purposes Committee, at 2 p.m.; both at 36, Gordon Square, W.C.1.
May 16th.—Spring Meeting of the Eastern Counties Division, N.V.M.A., at Cambridge, 2 p.m.
May 19th.—Special Meeting of the Lancashire Division, N.V.M.A., at Chester, 2.30 p.m.
May 22nd.—R.C.V.S. Council Election. Voting papers issued.
May 30th.—R.C.V.S. Council Election. Last day for receipt of voting papers.
June 6th.—**R.C.V.S. Annual General Meeting**, 10, Red Lion Square, London, W.C.1, 11.30 a.m.
June 6th.—V.V.B.F. Annual General Meeting, 10, Red Lion Square, London, W.C.1, to follow above meeting.
June 7th.—R.C.V.S. Committee Meetings.
June 8th.—**R.C.V.S. Council Meetings.**
June 27th.—R.C.V.S. Examinations begin (provisional date).

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PERSONAL

Award of R.C.V.S. Fellowship Diploma.—At the quarterly meeting of the Council of the Royal College of Veterinary Surgeons held on March 30th, a report of the proceedings of which will appear in our next supplement, announcement was made of the award of the Fellowship Diploma to Mr. Mohammed Abd El Aziz Mahmoud El Hagri, B.SC. (Vet. Sc.) (Edin.), M.R.C.V.S., of Edinburgh, whose thesis was entitled "Study of the Arterial and Lymphatic Systems of the Udder of the Cow."

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Birth.—CLARK.—On May 3rd, 1944, at Llandrindod Wells Hospital, to Janet, wife of H. M. Clark, M.R.C.V.S., a daughter.

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Marriage.—MILLS—SANDS.—On April 19th, 1944, at All Hallows Church, Gedling, Notts, by the Rev. C. H. Weller, M.C., M.A., Captain George H. Mills, R.A., M.R.C.V.S., D.V.S.M., younger son of Mr. and Mrs. W. G. Mills, of Ramsbury, Wilts, to Dorothy May Sands, younger daughter of Mr. and Mrs. C. H. Sands, of Gedling, Notts.

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R.C.V.S. Diploma in Veterinary State Medicine.—At the D.V.S.M. examination held at Glasgow on April 13th and 14th, 1944, the following candidates were successful in obtaining the Diploma: Mr. J. G. K. Henderson, M.R.C.V.S., of Edinburgh, and Mr. W. J. Leyshon, M.R.C.V.S., of the Animal Health Division, Ministry of Agriculture.

REFORM IN MEDICAL EDUCATION

Views of the Royal College of Physicians

At a time when the subject of veterinary education is exercising the minds of members of the veterinary profession, it is of special interest to note proposals put forward to meet the educational problems—some of them markedly parallel—confronting our medical colleagues. The most recently issued series is that of the Planning Committee of the Royal College of Physicians of London, the Chairman of which is Lord Moran.

The report says that the Government has announced its intention of providing a health service that will bring the best medical advice and treatment to every one. Whatever form this service may take, its efficiency will depend on the quality of its personnel, and so indirectly on the means taken to select and train doctors.

In the making of a good doctor, says the report, the intellectual and personal qualities of the student are at least as important as the educational discipline to which he is submitted. There are, in our medical schools at present, too many students who have neither the character nor the ability to make good doctors. This is chiefly due to the small number of candidates entering medicine.

The field from which medical students are to be selected should be widened by making all university education free, and by the provision of maintenance grants to those university students in need. Each university or medical school should have a yearly quota of admissions, the quota being determined by the educational facilities of the institution. Suitability for entry as a medical student should be judged by academic ability measured by school record and examination, and character and personality. Selection should be made by a small body elected by the university or medical school.

Dealing with the training of a doctor, the committee points out that a student passes through at least 14 departments which may be directed by one of professorial rank. His working time is fully occupied by lectures and practical classes, attendance at which is in many cases compulsory. He has to endure this for five years or more, and, usually, does not emerge until three more years after the age at which, traditionally, he has become a responsible citizen. And the curriculum grows in content and complexity.

Some of the difficulties in the curriculum are inherent. Thus it is accepted that the duration of the undergraduate period proper cannot be reduced or extended. Nevertheless, there are remedies for some of its gravest defects, and these are to be sought under three headings: improved co-ordination, elimination of unnecessary detail, and a just distinction between the requirements of undergraduate and of post-graduate education. It is a general criticism of the curriculum that too much emphasis is laid on fact and too little on method. "We consider," says the report, "that a fundamental step in the reform of the curriculum is the recognition that medical education should fall into two categories: undergraduate, which provides for doctors as a whole and is unspecialised, and post-graduate, which caters for special needs."

Discussing the subject of pre-medical education at school the recommendations made are:—

School education should be continued at least until the age of 18, and specialisation, whether in arts or science, should be more limited than at present.

The higher schools certificate or whatever examination is substituted for it should be on a broader basis than at present.

The practice of awarding university scholarships on a specialised examination alone should be discontinued.

The status of teachers of the basic sciences for medical students should be raised.

Recommendations are also made for the revision of the pre-clinical curriculum and suggestions made to assist the co-ordination of pre-clinical and clinical studies. To provide a good education during the clinical period it is necessary to divide the clinical course into two parts, an undergraduate period of three years and a compulsory resident period of one year. The undergraduate period should aim at the teaching of method and principles and the development of judgment rather than the memorisation of fact. The content should be restricted to requirements common to all doctors. The compulsory resident period of one year should consist of paid resident house appointments in recognised hospitals.

Examination Reform

The achievement of the objectives during the undergraduate clinical course and resident year requires a reform of the examination system. Two final examinations are desirable. The first, at the end of the undergraduate period, should test the student's grasp of method and principle, and should only license him to practise under supervision in hospital. The second, at the end of the resident year, should test his practical capability and should license him to practise independently. The teaching hospitals should provide research facilities for all clinical teachers and the necessary secretarial and technical assistance. All clinical teachers should be paid on a full- or part-time basis. No clinical teachers should be called on to teach for more than eight months in the year.

The teaching hospitals should be more closely linked with the universities in finance and administration. The committee feels that the time has come when the university ideal should play a greater part in clinical education, and when the Exchequer should contribute more materially to a cause which is fundamental to the maintenance and improvement of the national health.

On the subject of psychological medicine, the committee says that from the purely practical point of view there is no doubt at all, first, that in much illness the mind is the root cause of the upset, and, second, that ordinary physical illness is very considerably modified by mental factors. A good doctor, whether he is a general practitioner or specialist, must therefore have an acute appreciation of human nature, and must be equipped to discover and treat the causes of the various mental disturbances which he will daily meet in practice. Another observation in the report is that it should be the aim of all physicians and surgeons to permeate their teaching with an interest in social medicine.

"Appreciation of Method rather than the Tyranny of Facts"

In editorial reference to the report, *The Times* observes: "The proposals, now under discussion, for a national health service, must obviously take into consideration the number of doctors required and the recruitment of medical students. The report, issued by the Royal College of Physicians, of its Planning Committee on medical education is therefore opportune. For several centuries the College has been deeply concerned with the training of doctors and there is much in the present report of which the great William Harvey would have heartily approved. Moreover the report of the Goodenough committee on this same subject is expected shortly. Together these authoritative but distinct enquiries should help to secure a plan of reform which is firmly and wisely founded.

"The changes proposed by the College concern principally three stages of the medical student's career. First comes the suggestion that university education, not only in medicine, should be free to those in need. Maintenance grants should be provided. Medical students would be selected by the criteria of academic ability, character, and personality. The reforms in the training of a doctor in the middle phase are largely technical in content, but the core of the argument is given in a quotation from Karl Pearson that 'the true aim of the teacher should be to impart an appreciation of method and not a knowledge of facts.' Lord Moran, Chairman of the College committee, has long been conspicuous in protest against the tyranny of facts, and throughout the suggestions for the reform of the main part of the medical curriculum runs this theme of continuous training in method. From this the proposals for the last stage of the curriculum follow logically. The final examination is no longer to be a feat of endurance in which the mastery of burdensome detail is the key to success. Instead there is to be an educational test first, applied to the student's acquaintance with general principles. When this is passed, those who intend to practise will go on to a year of resident hospital appointments which will be followed by a purely practical examination and then by registration as a medical practitioner.

"War-time arrangements have completely vindicated those who have for long urged the necessity and practicability of making a resident hospital appointment compulsory for all doctors before they enter upon independent practice. The College's proposals in this respect alone would go far to improve the qualities of the doctors of the future. Adoption of most, if not all, of the other reforms would tend to raise the level of general education and interests in the medical profession. The modern developments of medical science have by their very complexity threatened to restrict the practitioner's cultural equipment."

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The nerve degeneration manifested by the pronounced locomotory inco-ordination common in growing swine was traced to a deficient intake of pantothenic acid and pyridoxine (vitamin B_6) according to a paper presented to the annual meeting of the American Association of Animal Production at Chicago in December, 1943. The experiments described show the relationship of these factors to the locomotory disorder. Calcium pantothenate added to the diet reduced the incidence of the trouble, but full protection required the addition of pyridoxine and the amine choline to the purified diets used. In effect, however, the conclusion was that subnormal pantothenic acid intake is primarily responsible for locomotory inco-ordination in swine.—*J. Anim. Sci.*

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Appealing to the Carmarthenshire County Council to make further representations to the Ministry of Agriculture for the establishment of a veterinary college in Wales (preferably at Cardiff), Mr. T. Ll. Harries said that, in a scheme put forward by

the Government in a White Paper, it was proposed to establish additional veterinary training centres elsewhere. Unless they looked into this matter without delay, Wales would be flouted again.

The Council decided to reaffirm its previous resolution requesting that Wales should have a veterinary college of its own, and to ask the Welsh Parliamentary Party to support the claim.

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Mr. Vernon Bartlett, M.P., will address the Farmers' Club on the subject of "Agriculture and Parliament" at the Royal Empire Society, Craven Street, W.C.2, on Monday, May 15th, at 2.30 p.m.

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The world's record price for a Romney ram has been realised in New Zealand, where a two-year-old animal was sold for 1,075 guineas. New Zealand Romneys originated from the Kent marshes.

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SCHEME FOR THE CONTROL OF DISEASES OF DAIRY CATTLE

STATEMENT SHOWING THE NUMBER OF UNDERTAKINGS NOTIFIED TO THE MINISTRY OF AGRICULTURE DURING THE MONTH ENDED APRIL 30TH 1944

County	Undertakings Notified		Total Undertakings		
	During Month	Previously	Number	Number of Cattle	
				Cows	Heifers
ENGLAND					
Bedford	—	41	41	930	519
Berks	2	101	103	3,555	2,161
Bucks	5	86	91	3,288	1,705
Cambridge	—	15	15	353	152
Chester	4	398	492	13,091	4,458
Cornwall	—	8	8	158	195
Cumberland	2	63	65	1,636	1,419
Derby	7	311	318	9,258	5,036
Devon	7	240	247	3,890	2,323
Dorset	1	70	71	2,193	1,182
Durham	3	273	276	6,126	2,106
Essex	1	251	252	8,862	5,113
Gloucester	2	105	107	3,127	1,748
Hampshire	6	385	391	11,159	7,200
Hereford	—	27	27	413	219
Hertford	—	77	77	2,318	1,422
Hunts	—	14	14	470	311
Isle of Ely	1	2	3	83	75
Isle of Wight	—	15	15	267	128
Kent	4	148	152	3,923	2,206
Lancs	1	215	216	6,232	1,977
Leics	3	92	95	2,460	1,700
Lincs (Holland)	—	3	3	25	11
Lincs (Kesteven)	—	23	23	311	146
Lincs (Lindsey)	1	103	104	1,978	1,103
Middlesex	—	16	16	641	307
Norfolk	2	189	191	5,744	3,813
Northants	—	81	81	2,175	1,499
Northumberland	—	60	60	2,190	1,039
Notts	1	158	159	3,676	2,107
Oxford	—	41	41	1,247	1,104
Rutland	—	8	8	138	92
Salop	3	275	278	8,380	4,029
Soke of Peterborough	—	1	1	37	31
Somerset	2	234	236	5,990	2,787
Staffs	1	212	213	6,240	3,274
Suffolk, E.	—	95	95	2,230	1,626
Suffolk, W.	—	51	51	1,084	650
Surrey	—	117	117	3,272	1,489
Sussex, E.	1	183	184	4,772	2,674
Sussex, W.	1	140	141	3,832	2,189
Warwick	—	135	135	3,382	1,943
Westmorland	—	15	15	459	546
Wilts	1	91	92	3,823	1,746
Worcester	2	156	158	3,350	1,515
Yorks, E.R.	1	99	100	1,551	876
Yorks, N.R.	—	121	121	2,473	1,470
Yorks, W.R.	3	269	272	6,668	2,590
WALES					
Anglesey	—	44	44	763	565
Brecon	—	9	9	199	108
Caernarvon	1	111	112	1,813	951
Cardigan	1	28	29	590	343
Carmarthen	3	235	238	4,260	2,187
Denbigh	2	62	64	1,350	713
Flint	2	114	116	2,561	1,104
Glamorgan	4	92	96	1,579	611
Merioneth	—	10	10	125	68
Monmouth	1	52	53	1,267	748
Montgomery	—	17	17	326	243
Pembroke	—	92	92	1,680	1,186
TOTALS	82	6,679	6,761	175,862	92,739

Notes.—(1) Operative periods of undertakings: 1 year, 1,451; 2 years, 581; 3 years, 4,729. (2) Undertakings renewed for a further period: 1 year, 462; 2 years, 103; 3 years, 115. (3) Undertakings not renewed at end of operative period, 245. (4) The figures showing the number of undertakings notified during the month, relate to entirely fresh undertakings, and do not include undertakings renewed for a further period. Undertakings which have been cancelled or not renewed are not included in the figures for previous notifications.

With reference to the statement of the number of undertakings for the month of March it is regretted that the total number of heifers was inadvertently quoted as 93,999 instead of 91,909.

County	Undertakings Notified		Total Undertakings		
	During Month	Previously	Number	Number of Cattle	
				Cows	Heifers
SCOTLAND					
Aberdeen	—	28	28	1,195	404
Angus	—	20	20	771	315
Argyll	—	6	6	113	115
Ayr	1	38	39	1,246	959
Banff	—	4	4	121	42
Berwick	—	2	2	53	22
Bute	—	—	—	—	—
Caithness	—	—	—	—	—
Clackmannan	—	4	4	119	96
Dumfries	—	13	13	672	553
Dumbarton	—	3	3	195	86
East Lothian	—	3	3	145	88
Fife	—	34	34	1,252	571
Inverness	—	10	10	349	192
Kinkardine	—	5	5	231	126
Kinross	—	3	3	59	32
Kirkcudbright	—	15	15	886	701
Lanark	—	20	20	717	498
Midlothian	—	1	1	44	69
Moray	—	—	—	—	—
Nairn	—	1	1	14	—
Orkney	—	—	—	—	—
Peebles	—	5	5	101	45
Perth	—	33	33	752	428
Renfrew	—	9	9	384	297
Ross-shire	—	3	3	89	65
Roxburgh	—	—	—	—	—
Selkirk	—	—	—	—	—
Stirling	—	28	28	828	641
Sutherland	—	4	4	102	64
West Lothian	—	1	1	23	18
Wigtown	—	25	25	1,629	829
Zetland	—	—	—	—	—
TOTALS	1	318	319	12,000	7,256

Notes.—(1) Duration of undertakings: 1 year, 44; 2 years, 39; 3 years, 236. (2) Undertakings renewed for a further period (included in column 2 of statement): 1 year, 26; 2 years, 4; 3 years, 2. (3) Undertakings expired and not renewed (not included in column 2 of statement): 50. (4) The figures showing the number of undertakings notified during the month relate to entirely fresh undertakings.

* * * * *

AN AGREED POLICY ON AGRICULTURE

An agreed policy, endorsed by representatives of all sections of the agricultural interest, was adopted unanimously at a conference held on Saturday last at the headquarters of the Royal Agricultural Society, Bedford Square, Sir George Courthope, M.P., President of the Society, in the chair.

A revised "draft of principles" accepted by a conference on April 12th was further revised after debate, and declared that:—

The fundamental purpose of a long-term policy should be the proper use and management of the agricultural land of the country for the production of the foodstuffs which it is best fitted to provide and which are most required to satisfy nutritional needs, while maintaining the fertility of the soil, the raising of the standards of rural life, and the increase in the rural population.

It is essential on national grounds that British agriculture should be maintained in a healthy condition, sufficiently prosperous to ensure a stable level of prices which will yield a reasonable return to the producer and on the capital employed in the industry, and a scale of wages sufficient to secure a standard of living comparable to that of urban workers. There should be a definite relation between the price level and the costs of production.

Mixed farming should be encouraged in order to ensure soil fertility and regular employment throughout the year.

International and Imperial co-operation must be secured in the orderly regulation of production and marketing, as proposed in the report of the Hot Springs Conference.

A statutory body was recommended to continue the functions of the Ministry of Food in regard to the importation and marketing of competitive foodstuffs, supported by an Imports Board; and in return for a guaranteed price level all owners and occupiers of rural land must accept an obligation to maintain a reasonable standard of good husbandry and good estate management, and submit to direction and guidance, subject to appeal.

Other proposals related to the expansion of agricultural education and research, opportunities for advancement within the industry, taxation "such as will make it possible to plough back into the industry capital necessary for the provision and upkeep of movable equipment," adequate credit facilities on terms equally favourable to those enjoyed by other industries, the provision of machinery for farmers and small-holders on reasonable terms, good houses for agricultural workers at economic rents, the extension to rural districts of water supplies, improved sanitation, gas or electricity, the overhaul of the administrative machinery of land drainage, and the recognition of the maintenance of sea walls and defences as a national charge.

Sir George Courthope undertook to submit the agreed draft to Mr. Hudson, Minister of Agriculture, and other Ministers concerned. He hoped also at a suitable time to take it to the Prime Minister. He emphasised the importance of having agreed on a

policy. The Minister for Agriculture had told him that if that could be done it would greatly facilitate his work in securing agreement in the Government itself.

The organisations represented were the Royal Agricultural Society of England, the National Farmers' Union, the Group of Peers, the Councils of Agriculture for England and Wales, the Central Landowners' Association, Transport and General Workers' Union, Land Union, Chartered Surveyors' Institution, Land Agents' Society, and the Land Settlement Association.

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CORRESPONDENCE

The views expressed in letters addressed to the Editor represent the personal views of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

Letters to the Editor should reach the Office not later than by the first post on Monday morning for insertion in following Saturday's issue.

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RODENT ULCER

Sir,—In reference to what Major Hamilton Kirk, in his clinical communication in the *Record*, No. 18, calls "rodent ulcer on the upper lip of the domestic cat," I would venture to suggest that this also is only a "spurious rodent ulcer," as was that of the nasal septum of the cat mentioned in his article.

I obtain a very high percentage of success in treating labial ulcers by painting with 1 per cent. solution of gentian violet three times daily. Healing is frequently spectacular, even in advanced cases.

This treatment has been tried on the rodent ulcers which occur on the abdominal epithelium of aged dogs. In these cases the condition may be arrested, but the fibrous base does not resolve, and the lesion (even in the few cases where healing is obtained) will break down again sooner or later. These lesions, therefore, I take to be true rodent ulcers.

Yours faithfully,

511, Wilbraham Road, E. Hilda Patchett.
Chorlton-cum-Hardy, Manchester 21.
April 30th, 1944.

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THE CALFHOOD VACCINATION SCHEME

Sir,—I was intensely interested in your report of the preliminary negotiations of the calfhood vaccination scheme because I feel that this scheme will prove to be a major and lasting benefit to agriculture, provided only that the vaccine is consistently effective. I may say that my own earlier doubts on this score have to a large extent abated.

I have no doubt that the survey scheme has proved and is proving a useful war-time expedient. That the calfhood vaccination scheme will tend to destroy it seems equally evident to me. I feel that this is not altogether undesirable in view of the fact that the success of the survey scheme rests to a considerable extent upon the present fictitious values of livestock and agricultural produce—sustained as they are by subsidies—and also upon the present heavy rate of taxation and excess profits tax.

While upon the subject of false present-day values may I be permitted to point out that the present shortage of practitioners in the veterinary field is likewise a fictitious and transient thing. It arises from similar causes together with the fact that many veterinary surgeons are on active service. This state of affairs is by no means peculiar to the veterinary profession, but exists in every profession and trade at this present time. How short a time it seems since not a few of our recent graduates were unable to find employment in their own profession. How short a time it seems since this country had two million unemployed.

In the last instance the future of British agriculture—and directly proceeding from that, the future of the veterinary profession—depends, not upon the deliberations and findings of committees, governmental or professional, but upon the results of trade agreements between this and other countries. Until such agreements have been reached no man can even begin to estimate the number of veterinary surgeons which will be required in the post-war era.

I am, Sir,

Yours faithfully,

Stirling House, J. P. Pickering.
Hexham, Northumberland.
May 2nd, 1944.

THE R.C.V.S. COUNCIL ELECTIONS

Sir,—To all members of the electorate who value our one-portal system, a frank and clear declaration by each candidate on his position on this vital matter prior to the coming elections will probably be regarded as indispensable. It would seem to be equally important and desirable that the voter should know whether a candidate accepts or rejects the Loveday Report, for on study it seems obvious that the implementing of that Report means saying "good-bye" to our "one way road" into the ranks of the profession. All voters should surely decide for themselves whether, despite its careful and clever phraseology, it does not mean both that, and the ultimate handing over of the education and examination of future students to the universities, and a reduction of the power of control of the Royal College over the affairs of the profession to a secondary and impotent place. Lastly, many voters might wish to know from each candidate whether he is for or against any further action being taken by the Council of the Royal College to promote the "registration" or recognition by it in any way of persons other than its graduates, as fit to undertake the treatment of animals.

Yours faithfully,

"Rhianfa," Sandy Lane, E. P. Edwards.
Prestatyn, N. Wales.
May 6th, 1944.

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THE ELECTIONS AND THE LOVEDAY REPORT

Sir,—In a letter to the *Record* on the subject of recruitment which you recently were so kind as to publish, I endeavoured to point out the many ways in which the veterinary profession was essential to the welfare of the State, and I ventured to suggest that we should no longer be cajoled or despised.

Since then a Summary of the Principal Conclusions and Recommendations contained in the Second Report of the Loveday Committee has been published and I had hoped to read in your issue of April 29th some comment upon it. But as your Committee and your correspondents have maintained a discreet silence upon this amazing and alarming document, I take the very great liberty of referring to the matter.

To my mind, the most important and ominous threat in it is contained in the words of Para. 6, sub-para (2), which reads "that the Council of the R.C.V.S. should be *required* (the italics are mine) to place upon the Register of Members of the College the names of the graduates of universities authorised by the Privy Council to confer degrees which are registerable qualifications." There are other sentences which indicate a latent contempt for us and our cherished institutions, but, I think, the crux of the matter lies in the above sentence. In other words, we who have borne the heat and burden of the day are no longer to be masters in our own house, but are to be *required* to accept any lodgers who demand entrance to it.

I submit that we must now look to our real governing body, the Council of the R.C.V.S., to defend and protect our rights and privileges. It therefore behoves us at the forthcoming election for Council to appoint those who we can trust. For this reason, time being so short, and no guidance or advice being vouchsafed from your columns, I have telegraphed to Dr. J. T. Edwards, who was the first to sense our danger and warn us of it, urging him to offer himself for election. If he will consent to do so, I am sure members will be well advised to vote for him. He is, undoubtedly, the premier scientist among us; he knows what veterinary education and research should be—did he not "sit at the feet" of the great M'Fadyean—he has studied with fearful intensity the problems which assail us, and if he can be persuaded to stand for election, I am convinced he is the best man to vote for. If I have any votes I shall record them all in his favour.

Yours faithfully,

Little Common, Sussex. L. E. W. Bevan.
May 4th, 1944.

* * * * *

WILLIAM YOUATT (1776-1847)

Sir,—In his valuable article "Retrospect on the Veterinary Art" (*Vet. Rec.* **56**, 138) Professor Matheson mentions Dr. Thomas Watson's great respect for Mr. Youatt. A further example of the high reputation Mr. Youatt had outside the profession will be found in "The Origin of Species" (Sixth Edition, with additions and corrections to 1872, John Murray, London). Youatt's views are quoted on pages 23, 26 and 400. Darwin describes him as a man "who was probably better acquainted with the works of agriculturalists than almost any other individual, and who was himself a very good judge of animals. . . ."

Yours faithfully,

Wilmslow, Cheshire. John Francis.
May 2nd, 1944.